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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,866

09/29/2006

Dirk Schmidt

FMW-CT-PCT-US

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HUDAK, SHUNK & FARINE, CO., L.P.A.  
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SUITE 307  
CUYAHOGA FALLS, OH 44221

EXAMINER

CHAU, TERRY C

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,866	<b>Applicant(s)</b> SCHMIDT ET AL.	
	<b>Examiner</b> TERRY CHAU	<b>Art Unit</b> 3655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/29/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____.        |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                              |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/10/2009</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Machine Translation for DE 43 04 857 A1</u> . |



### **DETAILED ACTION**

This is the second office action for application 10/594,866 filed 9/26/2006.

Claims 1-20 are pending in the application.

The amendments to the specification filed 4/10/2009 have been entered. The previous objection to the specification is withdrawn in light of the applicant's amendment.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 4/10/2009 and 9/29/2006 have been considered by the examiner.

### ***Oath/Declaration***

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The full name of each inventor (family name and at least one given name together with any initial) has not been set forth. Jose Alguera appears to be the same person as Jose Manuel Alguera Gallego (see US 2008/0185228).

### ***Specification***

The disclosure is objected to because of the following informalities:

It is unclear from the applicant disclosure how the closing hook 4 is mounted in the bearing hole 20 as per paragraph 0052. It is noted that bearing hole 20 is on closing bar 5 of figure 4.

Appropriate correction is required.

### ***Claim Objections***

Claims 14, 16 and 19 are objected to because of the following informalities:

In claims 14 and 19, "a fifth wheel", "a coating", and "a sliding coating" are recited. As claim 1 recites these limitations, applicant is advised to change the article "a" to --the--.

In claim 16, the term "preferably" renders the claim indefinite because it is unclear whether the limitations following "preferably" are part of the claimed invention.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 2, 3, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 3,000,653) in view of Schneider (DE 41 10 893 A1).**

Wood discloses:

Regarding claim 1:

A system for lubricating a closing mechanism on fifth wheels (see figure 1) comprising:

a closing mechanism (20) arranged on the bottom side of a coupling plate (10), having at least one closing hook (20) provided with a coating (lubricant coating produced by lubricant carrying member 13), and a grease reservoir (12, 12a, 13; see lines 28-33, column 2), wherein the coating of the closing hook is configured as a sliding coating (lubricant coating).

Wood does not disclose a grease reservoir connected by a lubricating line to the closing hook, and the grease reservoir is a grease cartridge, with the grease cartridge arranged on the fifth wheel.

Schneider discloses a lubrication system for a fifth wheel (see figures 1-4) wherein a grease reservoir (32) connected by a lubricating line (30, 20e) to a wear ring (24). Due to gravity lubricant runs down from the wear ring onto closing hook (18; see paragraph 2, page 4, of translated specification submitted 4/10/2009 by the applicant). The grease reservoir is arranged on the fifth wheel (see figure 1; see paragraph 5, page 3, of translated specification submitted 4/10/2009).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lubrication system of Wood such that the grease reservoir is connected by a lubricating line to the closing hook in view of the teachings of Schneider

Art Unit: 3655

that a centralized lubrication system may be used to distribute lubricant to multiple parts on a fifth wheel including the closing hook by way of lubricating lines (see figure 1 and paragraph 5, page 3 of the translated specification submitted 4/10/2009)

From the drawings, the grease reservoir of Schneider appears to be a grease cartridge (32) as there are two bore holes on the surface of the reservoir. However, it would have been obvious to make the grease reservoir separable from the coupling plate in order to facilitate assembly or to make the reservoir accessible.

Regarding claim 2, the grease cartridge is coordinated with the fifth wheel.

Regarding claim 3, the grease cartridge is arranged underneath the coupling plate (see figure 1 of Schneider; see paragraph 5, page 3, of translated specification submitted 4/10/2009).

Regarding claim 14, the closing hook is for use in a fifth wheel, and at least one outer surface is provided with a coating (see coating of claim 1), wherein the coating is in the form of a sliding coating (see sliding coating of claim 1).

**Claims 1, 2, 3, 14-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 3,000,653) in view of Schneider (DE 41 10 893 A1) and Heinzl (DE 43 04 857 A1; see machine translation).**

See the 35 USC 103 (a) rejections of claims 1-3 above. The previous rejections of claims 1, 2 and 3 over Wood in view of Schneider are still applicable, however, a different interpretation of a coating on the closing hook and closing bar, such that the coating is a sliding coating is provided.

Heinzel discloses a fifth wheel assembly (see figure 1) with a sliding coating (see paragraph 11, page 3 of the machine translation) on the surfaces (29, 31) of the closing hook (18) and closing bar (16). The sliding coating, similar to the sliding coating on receptacle (34), may consist of a hard layer, a PTFE layer, and an optional adhesion layer (see paragraphs 2-8, page 3 of the translation).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a sliding coating on the closing hook and closing bar with the lubrication system of Wood as modified by Schneider in view of the teachings of Heinzel that a sliding coating can drastically reduce lubricant consumption (see paragraph 12, page 1 of the machine translation).

Regarding claim 14, the closing hook is for use in the fifth wheel, and an outer surface (29) is provided with the coating, wherein the coating is the sliding coating.

Regarding claim 15, the sliding coating consists of a multilayer system (a hard layer, a PTFE layer and an adhesion layer).

Regarding claims 17 and 18, the sliding coating has a layer thickness of 50 to 150  $\mu\text{m}$ ; the sliding coating has a layer thickness of 70 to 130  $\mu\text{m}$ . (A prima facie case of obviousness exists due to an overlap of ranges. See paragraphs 7-9 and 14, page 2 of the translation. The thickness of the sliding coating ranges, which includes all three layers, ranges from 40 to 370  $\mu\text{m}$ .)

Regarding claim 19, the closing bar is for use in the fifth wheel, and an outer surface (31) is provided with the coating, wherein the coating is the sliding coating.



**Claims 4-8, 11-12, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 3,000,653) and Schneider (DE 41 10 893 A1) as applied to claim 1 or 2 above, and further in view of Oloman et al. (US 5,968,325).**

The teachings of Wood and Schneider have been discussed above.

Wood and Schneider do not disclose that the grease cartridge has a drive unit.

Oloman et al. discloses a grease cartridge (12; see figure 1) with a drive unit (16, 18, 20).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include with the cartridge of Wood as modified by Schneider, a drive unit, in view of the teachings of Oloman et al. that the drive unit may be used to actuate an automatic lubricant dispensing device (see Field of the Invention and lines 41-46, column 2).

Regarding claim 5, the drive unit comprises an electromechanical drive.

Regarding claim 6, the drive unit comprises a chemical drive.

Regarding claim 7, the drive unit is connected to a variable control mechanism (see figure 3; also see lines 6-9, column 4).

Regarding claim 8, the variable control mechanism comprises an engine control mechanism (see figure 3; 20 is regarded to be the engine).

Regarding claim 11, the variable control mechanism communicates with a vehicle control unit (see figure 3; the feedback control in figure 3 is a vehicle control unit as it is part of the vehicle and controls the flow of lubricant; the variable control

Art Unit: 3655

mechanism is in communications with itself as signals travel through its electrical circuit).

Regarding claim 12, the variable control mechanism communicates with a coupling control unit (see figure 3; the feedback control in figure 3 is a coupling control unit as it control lubricant to the fifth wheel coupling; the variable control mechanism is in communications with itself as signals travel through its electrical circuit).

Regarding claim 20, Schneider also discloses that the grease cartridge is arranged underneath the coupling plate. Wood and Schneider do not disclose that grease cartridge has a drive unit that comprises an electromechanical drive or a chemical drive, wherein the drive unit is connected to a variable control mechanism that comprises an engine control mechanism, wherein the variable control mechanism communicates with a control unit. Oloman et al. discloses the undisclosed limitations for the reasons mentioned above.

**Claims 4, 5, and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 3,000,653), Schneider (DE 41 10 893 A1), as applied to claim 1 above, and further in view of Riskedal (US 6,874,599).**

The teachings of Wood and Schneider have been discussed above.

Regarding claim 4, Wood and Schneider do not disclose that the grease cartridge has a drive unit.

Art Unit: 3655

Riskedal discloses a fifth wheel lubrication system with a grease cartridge (12) having a drive unit (16, 18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include with the cartridge of Wood as modified by Schneider, a drive unit, in view of the teachings of Riskedal et al. that a drive unit may use to actuate the grease cartridge pneumatically or manually in order to lubricate the fifth wheel (see abstract).

Regarding claim 5, the drive unit comprises an electromechanical drive (see lines 17-27, column 4; mechanical compressor 18 appears to be controlled by electrical controller 22).

Regarding claim 7, the drive unit is connected to a variable control mechanism (22).

Regarding claim 8, the variable control mechanism comprises an engine control mechanism (variable control mechanism appears to control compressor 18).

Regarding claim 9, the variable control mechanism comprises a valve control mechanism (22).

Regarding claim 10, the valve control mechanism comprises a flow restriction valve (20) arranged in a lubricating line (30).

Regarding claim 11, the variable control mechanism communicates with a vehicle control unit (22).

Regarding claim 12, the variable control mechanism communicates with a coupling control unit (22).

**Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 3,000,653), Schneider (DE 41 10 893 A1), and Oloman et al. (US 5,968,325) as applied to claim 7 above, and further in view of Schedrat et al. (US 5,438,881).**

The teachings of Wood, Schneider and Oloman et al. have been discussed above.

Oloman et al. also discloses that the variable control mechanism communicates with a pressure sensor (32).

Wood, Schneider and Oloman et al. do not disclose that the pressure sensor is arranged on the coupling plate.

Schedratl et al. discloses a fifth wheel (1; see figure 2) with a pressure sensor (10) arranged on the coupling plate (2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to arrange a pressure sensor on the coupling plate of the lubricating system of Wood as modified by Schneider and Oloman et al., in view of the teachings of Schedrat et al. that the results of the pressure measurements may be used to influence and improve the driving behavior of the vehicle (see abstract and lines 6-14, column 3).

**Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 3,000,653), Schneider (DE 41 10 893 A1), and Heinzel (DE 43 04 857 A1; see machine translation of the specification) as applied to claim 15 above, and further in view of Sedlatschek et al. (US 3,844,729).**

The teachings of Wood, Schneider, and Heinzl have been discussed above.

Heinzl also discloses that the multilayer system is composed of a first layer, which comprises an alloy with molybdenum and a second layer of PTFE applied to the first layer (see paragraph 4-9, page 2 of the translation).

Wood, Schneider, and Heinzl do not disclose that the first layer comprises an iron alloy with nickel and molybdenum fraction.

Sedlatschek et al. discloses a wear-resistant surface for a metallic machine element that is applied by plasma spraying (see lines 10-28, column 3). The wear-resistant surface comprises an iron alloy with nickel and molybdenum fraction (see lines 45-65, column 2). Furthermore, PTFE may be applied to the wear-resistant surface (see lines 14-19, column 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include iron and nickel with the molybdenum alloy of the multilayer system of the slide coating of Wood as modified by Schneider and Heinzl in view of the teachings of Sedlatschek et al. that a wear surface made such an alloy is capable of withstanding large stresses, friction, and provides for a sliding contact that may operate at elevated temperatures under conditions of inadequate lubrication (see lines 21-25, column 2).

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent

Art Unit: 3655

and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2 and 4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 12 of U.S. Patent No. 11/884,327. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

11/884,327 discloses:

Regarding claim 1:

A system for lubricating a closing mechanism on fifth wheels comprising:  
a closing mechanism (locking mechanism 17) arranged on the bottom side of a coupling plate (1), having at least one coated closing hook (14; see claim 12), and a grease reservoir (grease container 8), which is connected by a lubricating line (supply line 15) to the closing hook, wherein the coating of the closing hook is a sliding coating and the grease reservoir is a grease cartridge, with the grease cartridge arranged on the fifth wheel (see lines 6-7 of claims).

Regarding claim 2, the grease cartridge is coordinated with the fifth wheel (see line 6 of claims).

Regarding claim 4, the grease cartridge has a drive unit (feed pump 9).

### ***Response to Arguments***

Applicant's arguments, see Remarks, filed 4/10/2009, with respect to claims 1-20 have been fully considered and are persuasive. The rejection of claims 1-20 has been withdrawn.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Elyakim (US 4,477,100) discloses fifth wheel coupling apparatus.

Patterson et al. (US 6,802,394) discloses a self contained automatic lubricator.

Gallego et al. (US 2008/0,185,228 A1) discloses a lubricating system for a fifth wheel traction coupling of a semi trailer traction engine. Gallego et al. is the patent application publication for application 11/884,327.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERRY CHAU whose telephone number is (571)270-5926. The examiner can normally be reached on Monday-Friday 9:30am-6:00pm.

Art Unit: 3655

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (571)272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TERRY CHAU/  
Examiner, Art Unit 3655

/CHARLES A. MARMOR/  
Supervisory Patent Examiner, Art  
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